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Features

4 RAMSEY'S DRAFT by Judy Price
A look at a National Forest Wilderness Study Area

6 FISHING FOR ROCK BASS by Gerald Almy
Personal experiences battling the goggle eye

8 PRESERVE HUNTING by Austin Jennings
Paying for the privilege

13 BACKYARD HABITATS by George Harrison
Ways and Means

17 TROUT STOCKING SCHEDULE
The Game Commission stocking schedule for 1976

19 HUNTING DOGS I'VE OWNED by Laurence DuPuy
Six decades of hunting companions

20 VIRGINIA'S WETLANDS by Curtis Badger
A resource not measurable in dollars and cents

23 CAN THE CHICKAHOMINY SURVIVE by M. Amos
Kepone: Who bears the burden?

25 IN NATURE'S GARDEN by Elizabeth Murray
The Skunk Cabbage

27 BIRD OF THE MONTH by J. W. Taylor
The Short-eared Owl

Departments

3 EDITORIAL: Wildlife Week
3 LETTERS
10 PERSONALITIES: Andrew Huffman
12 CONSERVATIONGRAM
24 YOUTH AFIELD
26 ON THE WATERFRONT

Staff

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Editorial

WILDLIFE WEEK

National Wildlife Week is 39 years old this year. The first theme was centered on destruction of wildlife habitat and this has been a recurring topic down through the years, indicating that it has been a constant threat. This year the theme, "Save Our Wetlands" stresses their wildlife value, but their virtues are many. Virginia has over 300,000 acres of tidewater wetlands alone, and to quote an old cliche, "they ain't makin' any more."

National Wildlife Week is supported in Virginia by the Virginia Wildlife Federation and its affiliate sportsmen's clubs. They will be assisting with community exhibits and educational programs during the week, focusing attention on our wildlife and its problems.

Governor Godwin added his support with document recognizing March 14-20 as Wildlife Week in Virginia.

"Both spiritually and economically, man is critically dependent upon the wildlife of our wetlands and other areas. The advent of our nation's Bicentennial reminds us to maintain a place for our fellow creatures."

There are about 20 varieties of wetland, including marshes, swamps, river deltas, estuaries, prairie potholes, lakes, streams, river bottomlands and farm ponds. The U.S. Fish and Wildlife Service estimated that as early as 1956 more than 35 percent of these areas had been drained, filled or otherwise destroyed.

"We must preserve what is left and manage these precious areas in a responsible way," says National Wildlife Executive Vice President, Tom Kimbell. "Everyone has a stake in saving our wetlands and that is why this year's theme was chosen."

Letters

FISHING LICENSE LAMENT

I would like to see new fishing licenses become effective January 1st. Just like last year, I had to forfeit a fishing trip because my license had expired when some friends invited me to go one Saturday evening after our local agent had closed. They had a great trip.

A January-December fishing license would only be second best - why not 12 months from date of issue? Why not two or three years or even lifetime licenses? Virtually every fisherman I know agrees that the present system is third best at best!

Robert Phillips
Tabb

Since no expiration notices are sent, a staggered expiration system should greatly increase the fines collected which, unfortunately, the Game Commission does not get. —Ed.

WINTER WONDERINGS

The article "Winter," by Judy Price was certainly well-written as well as interesting and factual. There is indeed much life and beauty in this season of the year, as she suggests, "harmony ... the season of repose." A time for many humans, as well as game animals and birds for meditation to meet with vitality the spirit and challenge of spring!

Dr. Shelton H. Short, III
Lawrenceville

In the "Winter" article (January 1976) there is an error concerning the Nuttall's poorwill. The hibernating bird that Dr. Jaeger encountered in 1946 is not the only one that has been found as stated in the article (more than 30 have been discovered since that time) but it was the first to be found and the finding recorded.

Judy M. Price
Deerfield

VISITING HONKERS

I have a wildlife refuge and am primarily interested in waterfowl, having a collection of about 20 species of ducks and geese.

Recently while feeding some of my birds, there were about 100 wild mallards and black ducks visiting the lone open air hole in our lake.

As I began scattering feed most of the wild ducks flew away. As my Canada geese walked across the ice toward me, four visiting Canadas followed them warily. They did get close enough for me to observe that each bird wore a conventional size metal band on his right leg and a larger, probably plastic band on the left leg. The larger bands are red with white numbers, and the numbers are S05 - S11 - S18 - S28. I could not read the metal bands.

If anyone in your agency or among your readers can tell me where and when these geese were banded, I would appreciate it.

J. Creighton Riepe, Jr.
Charlotte Court House

How about it, readers?

AIMS LOW

I read your editorial, "The Outdoor Mystique," in the December 1975 issue. I thought you might like to know other people are thinking about the subject.

As many of us know, the C.B.S. show, "Guns of Autumn," intended to show hunting as very evil and unnecessary. I am not a hunter. My husband and three children enjoy and respect the sport. My children have gotten a good education and understanding in ecology, environment and balance in nature. This is what they have gotten out of hunting.

I am surprised the vegetarians in this country do not ask for equal time. Just think what an impact that showing a slaughterhouse would have on the TV viewers.

"The Guns of Autumn" on C.B.S. aims low. I would not give them any credit as they subjected the hunter to distortions and lies.

Elizabeth M. Fox
Manassas

ROCKY REVERSAL

I noticed in the January issue a discrepancy in the reported deer kill. The largest kill west of the Blue Ridge should be Rockingham, not Rockbridge.

You're right! Rockingham, 2,290; Rockbridge, 984. —Ed.

Ramsey's Draft

Harmony
in the hills of Appalachia

By JUDY PRICE
Deerfield

The Ramsey's Draft area is a harmony of Appalachian hills and hollows. Hills rise, climbing the shrubby slopes to mountain heights above 4,000 feet; hills fall, some rapidly descend, some drift easily downward to the stream-scored hollows below. Ramsey's Draft is chorded with both giant hemlocks from prior centuries, and young hemlocks that stand beneath the mother trees. The area varies in tone from the birches at its base, the native trout that inhabit the draft, the boulder-studded rock tripe at Hardscrabble Knob, to the bear that roam the peak.

The Ramsey's Draft Wilderness Study Area is located northwest of West Augusta, off U.S. Rte 250. This area of the George Washington National Forest is included in the Eastern Wilderness Bill, and given federal protection from abuse and unnatural alteration. It is given the right to constancy and change as nature commands. Under this bill, enacted January 3, 1975, the Ramsey's Draft area is to be examined by the Forest Service. Its suitability as defined by the Wilderness Act of 1964 is to be reviewed. Studies and reports are to be made, public hearings held, and advisory groups consulted before the area returns to Congress for the vote. It will then be approved or denied status as a permanent wilderness area.

The Forest Service has proposed 6,700 acres of the area for wilderness designation. The Sierra Club and other conservationists have requested an additional 15,000 acres. The boundaries and acreage will be the issues under greatest debate.

Regardless of the outcome, which will be years coming, Ramsey's Draft remains an area worthy of protection, rich in both plant and animal life, that cannot continue its natural rhythm if imposed upon by vehicles, uprooting or displacement by logging.

Fed by the rains that the hills have resisted, the waters of Ramsey's Draft have their origin in the wilderness study area. The stream flows southwestward through the center of the area, transversing it and seaming the ridges on either side. It runs beneath U.S. Rte 250, beyond the proposed area, to the Calfpasture River, to the James River, finally becoming part of the Atlantic.

The draft is shaded and protected by overhangs, arching oaks and stretching laurel. It runs shallow rapids, it trickles and rushes, and eases through clear water pools strumming an undertone of concord. It sustains a small population of native brook trout, perhaps one that could increase if protected from unnatural change. At this time, it also supports trout stocked by the Commission of Game and Inland Fisheries.

A trail follows the stream, crossing it more than a dozen times, sometimes crossing the tributaries that support it. It branches at its beginning onto a nature trail that circles about a pignut hickory, a serviceberry, and a sheer cliff face with a natural lichen display, each bearing a plaque of title and description.

Another nature trail follows Jerry's Run, a stream that connects with Ramsey's Draft. It leads westward from the Ramsey's Draft Trail through a narrow, shadowed hollow of tall hemlocks and trailing clubmosses, weaving up across the slopes of the ridges and down again. It leads to, and beyond, a cabin called Sexton Shelter, and a grassy park-like area. The Appalachian Trail Club of Washington, D.C., the organization to which the shelter was presented in 1930, maintains both the cabin and the trail. The cabin may be rented at any time of year for a small fee. Bunks and cooking utensils are furnished; food and other supplies must be packed in.

The Ramsey's Draft Trail continues by Jerry's Run Trail, along and often through, the Draft itself, to Hiner

Spring. Bearing left at the fork, it expires at the peak of the area, Hardscrabble Knob. The knob is sown with grasses and sheltered by a grove of evergreens. An old shack, once inhabited by a lookout, still stands. The cabin is weathered and airy, the roof only partially remaining. The tower, from which the lookout watched for fire, lies on its side. It has been pushed to the ground by Forest Service men to prevent accidents.

Hardscrabble Knob is 4,282 feet above sea level, a mountain by Appalachian standards. The approaches are strenuous, several across loose stone and through defiant laurel. The trail converging from the north climbs the gentlest slope, and crosses the gentlest terrain.

Because the geography of the Ramsey's Draft area is diverse, rising and falling 2,000 feet from base to height, the plant and animal life is diverse. Throughout much of the area, a climax forest has been reached, a forest of hemlock. Hemlocks shade the earth beneath them, and so many plants find it impossible to survive in that darkness. Only the young hemlocks revel in the shadows, slowly rising beneath the branches above, flourishing to replace the parent trees when the ages or winds come to claim them, flourishing to continue the dynasty.

The eastern hemlocks are evergreen; their form, accentuated by winter snow, is pagoda-like. Silhouetted against the sky, the branches appear feathery, intricately-designed. The hemlock prefers a northern exposure. Thoreau called it one that "belongs to cold hillsides." The Ramsey's Draft area provides those hillsides, deep in the hollows and on northern wind-blown slopes. It provides seeds and hemlock needles for ruffed grouse; and for deer, red squirrels and cottontails, provides twigs to eat, forage and a secure environment.

The woodland is virgin, spared originally by the woodsmen because of the wood's poor quality and the resistance of the knots to steel blades. Only the leaves and twigs were gathered for tea. Many of the trees have seen the roaming of the Indians, the buffalo and elk grazing the lush pasturelands. They have watched the coming of the white man and his struggle for ascent; his victories and defeats. They have watched his destruction of the Indian, the buffalo and the land. The forest has withstood it all and now, as man gains understanding and respect, perhaps it will be allowed to remain in continued watch over the hills and hollows. Perhaps the trees will be continuing survivors, their protection one of man's victories; their endurance, one of nature's.

The plants that grow beneath the evergreens, the small native flowers, ferns and shrubs, are as suited and settled to the area as the hemlocks. Though some alien plants have set seed and given rise to greenery, today the plant life is much what it has been for hundreds of centuries.

With all other factors secure, the animal life will remain also. Deer will run the hills, ruffed grouse will drum across the hollows. Bear will wander, and perhaps on some dark and hazy evening along a tangled ridgetop, an illusive mountain lion will linger for a time. Drawn by the music, by the drumming of the wild, by the trill of the gentle, man too may linger, not for a cord of firewood, tanbark or railroad ties, but for the strengthening of the senses and sensibilities. Wilderness has confined the essence of man, his spirit, sciences and mysteries. It has, from man's beginnings, drawn him and repelled him, given solace and release.

For some, the Ramsey's Draft area is a conflict between posterity and the purse; for some it is a conflict between the needs of today and those of tomorrow. While the conflict and the uncertainty burn in man, the wilderness continues to give.

FISHING FOR ROCK BASS

By GERALD ALMY
Arlington

Ambloplites rupestris is what ichthyologists call him. To you and me he's simply the rock bass, or maybe "red eye" or "goggle eye," depending upon local custom. He's a far from glamorous fish. His body is not tapered and sleek like a salmon or trout; his construction far from fragile and delicate like that of a grayling. Yet to many of us this stout, rugged, muscular-looking panfish is an angler's delight. A pair of large crimson eyes stand out vividly on the dark head of the bronzish-olive fish. Black horizontal markings dot intricate patterns on his glistening flanks. The subtle colorations are reminiscent of the hues of that other great river gamester - the smallmouth bass. Some novice fishermen have even been known to confuse the two.

Feeding this confusion is the fact that the rock bass and smallmouth generally cohabit the same waters. Those dark green, free-flowing streams known as excellent smallmouth waters generally produce the best goggle eye fishing to be found. In such emerald waters the colors of both fish are admirably suited to enable them to blend in with the algae-covered rock backgrounds. And rocks are a luxury the goggle eye can ill afford to do without. The species name, *rupestris* means "of the rocks." Stone and rubble-infested rivers such as the Shenandoah, James and Rappahannock offer some of the best red eye fishing in the East.

Rock bass do not reach tremendous sizes even in favorable environments. The average red eye runs five to seven inches in most streams and it takes a good three to four years for a fish to reach this modest size. The state record for Virginia stands at two pounds, two ounces. A pound specimen earns a citation, and few such fish are creeled in the Old Dominion in a typical year. (Trophy hunters might want to check out the Nottoway River, where the majority of these pound-plus fish are taken.)

Due to their chunky, robust constructions, however, an average-sized rock bass provides a substantial morsel when fried up and eaten "corn on the cob" style. Or if bones bother you, two thick fillets are easily sliced from the flanks of a full-sized red eye.

Don't worry about creeling a generous stringerful of these easily-cleaned, ravenously-consumed panfish. They are prolific breeders. Harvesting a portion of them regularly leaves more food and space for remaining rock bass, as well as other game fish such as small and largemouth bass. Recognizing this, the Commission of Game and Inland Fisheries has removed all size, season and creel limits on goggle eyes.

Female rock bass can lay as many as 9,000 eggs, though 4-5,000 is a more typical figure. These are deposited in nests dug in shallow areas of the stream near shore. After fertilization, the male guards the eggs pugnaciously. Spawning takes place when stream temperatures reach a sustained 65° - from late April through May on most Virginia waters.

Just prior to enactment of the spawning ritual, excellent fishing results if the fisherman locates a favored hole where rock bass school up in preparation for breeding. Such a place might be a deep, slow-flowing depression near shore where an eddy swirls in, bringing an abundance of food to satisfy the hungry fish. Shallow areas where fish can disperse when conditions become favorable for spawning must lie nearby. I have located a few of these pre-spawning, schooling holes

and found that most are used year after year. So if you pinpoint one, stick with it and you'll have a steady hotspot for early season rock bass action.

I searched for smallmouths one breezy spring day. (This is typically when the best rock bass fishing occurs - when you're after another fish!) A few dandy smallmouths fell for a silver spinner crawled slowly across the bottom, so when I reached a deep green pool adjacent to shore with a willow hanging protectively over it, I made a hopeful cast, plopping the spinner beneath the leaning branches.

A jolting strike brought a quick, reflexive response on my part and the ultralight rod bent. The fish pulled strong at first, but slower than a bronzeback, and it lacked the characteristic aerial acrobatics. Yet I was far from disappointed when a perky red eye came sliding into my outstretched palm. He was a fine seven incher, weighing probably two-thirds of a pound. I probed the pool in earnest after that and came up with several dozen red eye, ten of them keepers, before the fish tired of the game and quit biting.

During summer when water levels fall, goggle eyes sometimes bunch up in large schools in deep water. More common, however, is catching a few here, a few there - instead of finding the heavy early spring concentrations.

Probably the most delightful rock bass fishing occurs when the fish are spread out in shallow waters adjacent to shore. During breeding season fish are found in such locations all day long. After spawning, fish migrate to these areas in early morning and late afternoon hours to feed. Here they find minnows, caddis and mayflies, terrestrial insects fallen from streamside bushes, and crustaceans such as crayfish. These are fish that get the fly rodder's adrenalin flowing. They are ready, eager and willing to inhale tiny streamers, nymphs and wet flies pulled slowly through their feeding lies. Large dry trout flies, small cork poppers and rubber spiders take fish equally well on the surface.

Steve Johnson admires average rock bass from Rappahannock.

My most enjoyable method of working on these fish is casting rubber-legged, sponge-bodied spiders from mid-stream (either in a boat or wading) into shore, laying the soft, pliable bugs within inches of land. If a smallmouth or bluegill doesn't beat him to it (and who's complaining if they do?) Mr. Goggle Eye will plaster that bug with a deep sucking noise and display his stuff admirably on a limber fly rod. This form of angling is especially exciting if the water is clear enough to see the fish before you cast and watch as they speed to the bug, hesitate cautiously before it, and then grab it greedily as you give it a subtle, enticing twitch.

Sometimes rock bass are so eager they'll smack a fly as soon as it touches the water. Usually a slight twitch or two, spaced 20 to 30 seconds apart will be needed to turn the tide and draw them to the hook. If a fish hits after the second or third twitch, you can feel sure it's a red eye. Bluegills seldom strike a fly after it's moved more than once. They either hit it after the original twitch or ignore it. Rock bass sometimes strike much later. In fact, it is sometimes advisable to try a steady pull-retrieve of the fly all the way back. This works occasionally when the twitching tactic doesn't pay off. (Incidentally, this is one of the best opportunities to learn fly fishing. I've introduced a number of novices to the sport on rock bass and bluegills feeding in the shallows of our rivers.)

Flies should be small, sizes No. 8 through 12 are best. Leaders need not be excessively long, about seven feet, but make sure they're tapered - they cast more easily and smoothly than a level piece of nylon. The leader should taper to a tippet of about three or four pounds test. You won't need this much strength for red eyes, but it's impossible to tell when a trophy smallmouth or bigmouth may latch onto that tempting morsel.

Live bait fishermen will find the red eye a willing target for their squirming offerings. Minnows are probably their favorite food, but hellgramites and worms are also greedily devoured, as are crayfish and crickets.

Spinning lures take plenty of rock bass too. Most small lures with enticing actions work well, but special favorites seem to be banana-shaped wobblers, tiny minnow-imitating plugs and midget plastic worms. Little safety pin spinners or "spinner baits" have been very effective rock bass lures of late.

Smallmouth and trout are two of the greatest game fish around. When out pursuing them, and a measly goggle eye intercepts your lure, bait, or fly, you may be tempted to curse him. Resist the urge! Go after him with light tackle in habitat where he thrives, growing spunky, fat and tasty. Forget about the bass and trout for a while. I guarantee you won't be sorry after a day spent pitting skills against the wily rock bass.

Hunting Preserves: Is it really in the bag?

By AUSTIN JENNINGS
Arlington

"Vacuum Cleaner will find us a bird here real quick," Dean McDowell said as he turned a frisky little brittany spaniel loose at the edge of a cedar-dotted sage field. My hunting companion, Joe Canole, and I already had bulges in our game pouches from the three pheasants we had taken earlier, but we were anxious to tumble a fourth to even our take before the orange sun crept behind the gray, tree-spiked horizon. Vacuum Cleaner took one "loosening up" circle at full speed, then got down to business, hunting closely and thoroughly in front of us. Vacuum Cleaner soon displayed how she got her name as she worked the cover with her nose practically scraping the ground. Barely 60 seconds passed from the time she went to work before she went on point.

We took off after Vacuum Cleaner at a healthy clip, as she cautiously tracked the running ringneck. Finally, just shy of the forest, she froze as rigid as a stone carving. I took one step behind a cedar and there stood a stately cock. He hesitated, took two steps, and towered into the twilight. My double roared twice and our prize plummeted to the earth - a four-pound ringneck, glistening in the last faint golden rays of sunset.

With that bird's demise came the conclusion of my first preserve hunt on Merrimac Farms in Prince William County. It was an enjoyable, invigorating hunt, far from the "canned" artificial gunning many had warned me about. These birds were no spring chickens set loose before our feet as we held barrels aimed and ready. Rather, I found the birds strikingly similar to wild pheasants.

What exactly is preserve hunting? Simply stated, it is hunting for a fee on a licensed, partitioned area where game is released prior to the hunt to improve success chances for gunners. Some few preserves offer big game species in some states, but birds provide the major attraction on Virginia's preserves. Among the birds hunted, pheasant and quail are the two most popular species. Chukars and mallards are occasionally available, and at least one preserve offers turkeys.

Like anything, preserves have their drawbacks. Foremost, I think, is the psychological factor. It's impossible for me to entirely forget that I am hunting stocked game planted for my hunting pleasure. This is a minor drawback, however, for the actual hunting conditions are virtually identical to hunting in the wild.

Secondly, there is the matter of money. Few of us can afford to spend the amounts charged by preserves on a steady basis. A few trips a year is generally the limit for most people. This is not an indictment of preserve operators, however. On the contrary, most make sorrowfully small profits for the energy, time and money invested in the undertaking of running a quality game preserve. It's simply a costly project, and the hunter must ultimately pay these expenses if he is to partake of the sport offered.

The most obvious advantage of preserve hunting is a generous season. In Virginia the season runs from October 1-March 31. That's six solid months of hunting,

much of it coming during times when seasons on other lands are closed. Nothing can quite break the boredom of late winter blues (when regular hunting seasons are closed and fishing is still slow and cold) like an early March bird hunt.

Abundance of game is another major advantage of preserves. It's virtually assured that a considerable amount of game will be seen on a trip. This is not the predictability one would want every time he entered the fields and forests. Hunting would become dull and unchallenging if it were always so good. But when one is paying for the privilege of hunting, knowledge that plenty of game is about is a welcome tidbit to tuck beneath the brim of that tattered camouflaged hat. An adjunct to this is that plenty of shooting opportunities will be offered. This provides an excellent opportunity for the beginning hunter to get much-needed practice on live birds. Clay pigeons teach fundamentals of shooting, but they are a far cry from a cackling pheasant or a buzzing bobwhite erupting from the brush.

One of the boons of preserve hunting is the many excellent dogs one gets to gun over. They are some of the best in the business. For those unable to own dogs, this may offer one of the few opportunities to hunt with top-notch pointers. Most of these dogs know the terrain of the preserve and the habits of the birds. This makes them incredibly sharp hunting companions. Losses of downed birds and cripples are minimal. On the other hand, preserves also provide excellent chances for dog owners to hone up the skills of their pointers. Seldom will one find higher concentrations of birds on which to train dogs. Often a preserve operator lets you hunt your dogs with one or two of his. This can be of inestimable value to young, impressionable pointing dogs looking for an old timer to emulate.

Location is another helpful aspect of game preserves. The majority are reasonably close to urban areas, where city-tied hunters can reach them with a short drive, saving time and gas in the process. Knowledgeable guides are an important benefit of most hunting preserves. Usually the owner himself or an experienced dog handler guides parties for a very modest fee. The preserve guides I've hunted with have been pleasant, well-informed people with a deep love of the sport of bird hunting. They offer a storehouse of suggestions and assistance in gunning technique, if asked for it.

Not the least intriguing aspect of preserves is the "exotic" non-game species they offer. Where else but on a preserve could you hunt chukar partridges in Virginia? Wild pheasant hunting is improving in our state, but it still has a way to go before it becomes widely practiced. A final benefit of hunting preserves is that they take pressure off public hunting lands. This is increasingly important as more and more sportsmen take to the woods annually, in most cases concentrating heavily in public hunting areas.

Not all preserves are going to provide first class hunting trips. There are always a few poorly run operations in any field of business. To help insure quality in preserves, the North American Game Breeders and Shooting Preserve Association has adopted minimum standards which members must meet:

The area should look like good hunting country, with a blend of natural and cultivated cover.

Pheasants, quail and chukars should be full-plumaged, more than 16 weeks old, and of the same color and conformation as birds in the wild.

Mallards should be similar in weight and plumage to free-ranging mallards, and capable of strong flight between release sites and rest ponds.

Well-trained dogs should be available to reduce crippling losses.

Make reservations before visiting a preserve, and ask for a full explanation of hunting fees and methods of operation of the preserve. Most preserves have brochures which explain their system and will gladly send one upon request. Some work on a system of charging for birds bagged, but most preserves do not offer this option, unless the guide carries a gun to back up the hunter if he misses. Owners would quickly go broke if they charged for birds bagged and had a string of poor shooters signing up. Some preserves charge on the basis of birds released. This can work out alright, but if you don't find the birds you pay anyway. Often preserves charge this way if the hunter provides his own dogs. In this case the onus of finding the birds is on the hunter and his dog, not the owner.

The most common method of charging for preserve hunting is in terms of reasonable, fair chances at birds. If the dogs point a bird and it flushes within average shooting distance, you pay for it. However, most guides will take you after a missed bird if it does not fly too far and it looks like you could get him up again. This is done at no additional charge. If a bird flies out of the preserve, however, you're out of luck. Prices vary from preserve to preserve, but average out at around $6-8 for pheasants and mallards, $3-4 for quail, $4-6 for Chukars. Guides and dogs $3-8. When you think about all you're getting for that money, the price isn't bad.

Personalities
by F. N. Satterlee

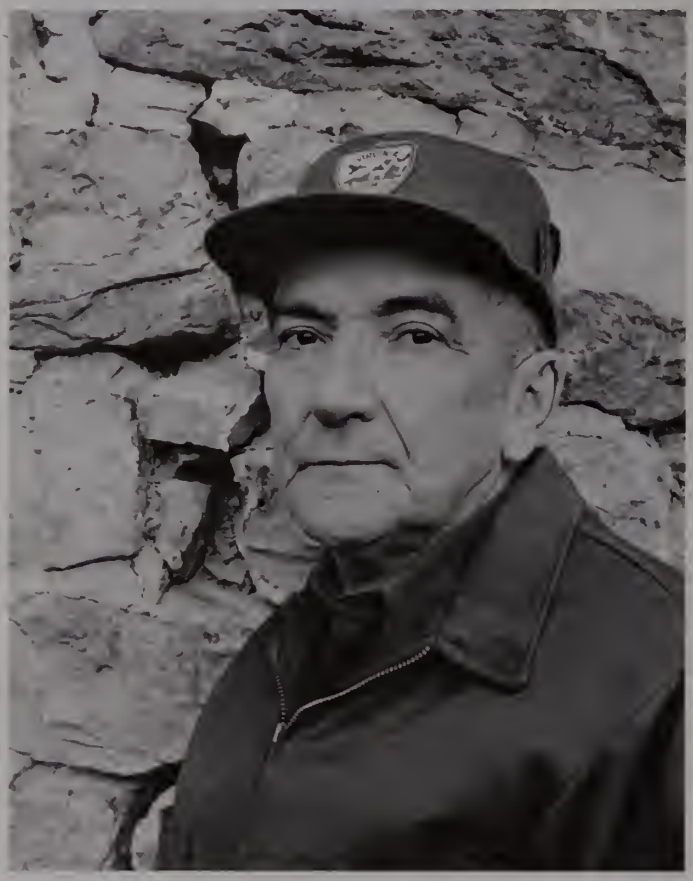


Photo By F. N. Satterlee

W. A. HUFFMAN, Refuge Supervisor, Gathright WMA

William Andrew Huffman is his given name, but his greetin' name, and the one most folks know him by, is Andy. He comes originally from the Craig Healing Springs area of Craig County where his father was basically a farmer but much more, as Andy is apt to tell you. It was from his father that Andy inherited an abundance of plain native savvy, a fantastic ability to work with his hands, best described as pure genius, and an uncanny understanding of woods, waters and things wild.

Following schooling in Craig Healing Springs, Va., Andy worked on the farm, for a time with the Highway Department, and he cut timber (with a broad ax) for the Forest Service. He also was an employee of the Post Office in Covington, WESTVACO and the Industrial Rayon Corporation. It was during this period in 1937 that he met and married Lovie Loretta Rucker from Falling Springs, Va. In 1943 he was drafted into the United States Army. Because of his expertise with firearms, Andy was assigned to the 310th Ordnance Battalion which was attached to Patton's Third Army. All told, he participated in five major European campaigns, including Normandy and the Ardennes.

Andy was discharged in September of 1945 and returned to Falling Springs, later moving to Covington. It was while he was working for the U.S. Forest Service in 1955 that he was accepted for employment with the Commission of Game and Inland Fisheries. He became Game Manager for the James River and Warm Springs Ranger Districts under the cooperative program practiced by the two agencies.

In August of 1958 the Game Commission purchased the Gathright tract in southwest Virginia. This consisted of 18,484 acres in Bath and Alleghany counties, which were designated as a Wildlife Management Area, and to which Andy was assigned as supervisor. In addition to opening it to the use of sportsmen, purchase of this area enabled the establishment of a wild turkey program. This involved the trapping of birds and transplanting them to other suitable areas in the Commonwealth. This was also the beginning of Andy's experimentation and refinement of the trapping techniques then in use by Game Biologists. He was also made responsible for the management of the Gathright area, including timber sales, survey and construction programs, establishment of food and cover plantings and law enforcement. It's often a seven-day-a-week schedule ... but he loves the work and is intensely interested in all the projects in which he is involved.

Since the turkey program began at Gathright, Andy has been responsible for the live trapping of more than 700 birds. His experimentation with techniques has continued until he has perfected a system which enables trapping to continue without any mortality and this, to Andy, is the ultimate in perfection, for he has a genuine love and concern for "his birds."

In 1968 he received a Certificate of Merit from the Game Commission for "his contribution to the successful turkey restoration in S.W. Virginia," and Andrew Huffman has been awarded the 1976 Penn's Woods Wild Turkey Restoration Award. In addition to the cash award which he received along with the honor, he will be recognized at the annual meeting of the Southeastern Association of Game and Fish Commissioners, scheduled to be held in Jackson, Mississippi in October 1976.

The Huffmans, Andy and Lovie, have two children and six grandchildren, and they make their home in the manager's residence in the lovely loneliness which is Gathright.

Conservation Short Course

GIVE YOUR SUMMER VACATION A THEME—CONSERVING VIRGINIA'S NATURAL ENVIRONMENT!

Take two weeks away from the pool or painting the house to plunge into a whirl of lectures, field trips, demonstrations and study designed to give educators an opportunity to learn more about the environment in which they live.

This college short course in conservation of natural resources could be the solution to your summer doldrums. You will gain exceptional insight into Virginia's geology, marine life, soil and water, forests and wildlife in the Natural Resource Conservation Course offered this summer for college credit by the Virginia Resource-Use Education Council.

The course basically provides advanced conservation training for teachers, thereby increasing the effectiveness of resource-use teaching in Virginia schools. Those teaching in the Natural Science field have the most to gain but teachers in other decipline have found the course invaluable.

WHEN AND WHERE: June 15-July 2, 1976, at Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

July 5-July 23, 1976 at Virginia Polytechnic and State University, Reston, Virginia.

July 12-July 30, 1976 at Virginia State College, Petersburg, Virginia.

July 19-August 6, 1976, at the College of William and Mary, Williamsburg, Virginia.

CREDITS: Five quarter hours credit will be given for satisfactory completion at Virginia Polytechnic Institute and State University; three semester hours credit will be given for satisfactory completion at Virginia State College or The College of William and Mary.

SCHOLARSHIPS: A limited number of scholarships will be available to Virginia school teachers from funds provided by several interested organizations. All Virginia school teachers are eligible to apply. In order for an application to be considered it must be received by May 3, 1976.

ENROLLMENT FORM:

To apply, complete and send this form to: Virginia Resource-Use Education Council, c/o E. W. Mundie, Setiz Hall, VPI&SU, Blacksburg, VA 24061.

_____ VPI&SU at Blacksburg June 15-July 2

_____ Virginia State College July 12-30

_____ VPI&SU at Reston

_____ The College of William & Mary July 19-August 6

Date _____ Name _____

Address _____

I should like to apply for one of the scholarships. Please send me the necessary forms.

Signature of Applicant _____

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

1975-76 BIG GAME HARVEST ROUNDUP

DEER. Jack V. Gwynn, Game Research Biologist Supervisor for the Commission of Game and Inland Fisheries, has compiled the deer harvest totals for the recently completed 1975-76 hunting season. With the exception of a relatively small number of tags yet to be received and counted, the figure represents very nearly the final total for the season. Gwynn stated that "preliminary analysis indicated that the decline in the number of deer which were killed east of the Blue Ridge was in those counties having "either sex" deer regulations for the last six days and that the weather, which was rainy and cold during that period, decreased hunter pressure and hunter success. This resulted in a drop of about 10% in counties east of the Blue Ridge." Total deer harvest for the Commonwealth, however, was up over the previous season and a new state record has been reached. The total harvest for the just completed deer hunting season was 63,243. This is in comparison with the 1974-75 season total of 60,798.

Success figures for the Archery deer season were also released by Gwynn. These numbers are included in the overall total listed above. Statewide a total of 709 deer were taken by bow and arrow. This compares with 708 taken during the previous season. East of the Blue Ridge 320 deer were taken this season and west of the Blue Ridge, 389.

BEAR. Jack W. Raybourne, Game Research Biologist with the Commission of Game and Inland Fisheries, released the preliminary figures on the bear harvest for the season which terminated on January 5, 1976. Raybourne stated that earlier predictions by the staff biologists proved to be quite accurate and the results were within the framework of the forecast. Total harvest for the season was 191 bears compared to 214 which were taken by hunters during the 1974-75 season. Augusta County was highest with 22 animals. During the previous season, 23 bears were taken in that county. The next highest counties and the comparable figures from 1974-75 were Madison 21/18; Albemarle 20/6; Giles 17/9; Nansemond 15/3; Rockingham 13/16; and Greene County with 13/5. "The 23% drop from a total of 214 during the 1974-75 season to the 191 bears taken during the 1975-76 season indicated that the desired reduction in the total harvest had been achieved," Raybourne said.

FALL TURKEY. Commission Game Management Field Coordinator C. H. "Kit" Shaffer has announced that 4,689 turkeys were bagged during the fall season which ended December 31, 1975. This is an increase of 1,348 birds over those harvested during the 1974 fall season when the total was 3,341. Shaffer explained that the increase was the result of an excellent hatch and the opening of six counties to either sex hunting for the first time. Those counties were Bland, Russell, Smyth, Tazewell, Washington and Wythe. During the 1975 season 863 turkeys were killed east of the Blue Ridge compared to 790 in 1974. West of the Blue Ridge there were 3,826 birds harvested in 1975 versus the 2,551 birds taken in 1974. High counties in the turkey harvest were Bath 371; Rockbridge 360; Augusta 350; Botetourt 344 and Giles 272. Shaffer stated that, "it appears that, in addition to this good fall harvest, the carry-over for the spring gobbler season will be excellent."

Backyard Habitats

By GEORGE H. HARRISON
Hubertus, Wisconsin

Virginians

have always been deeply involved in outdoor activities such as hunting, fishing, camping, hiking and bird watching, but something new is happening among outdoor enthusiasts in the Commonwealth, and it is happening right around home - it's called a "Backyard Wildlife Habitat." It is the latest step toward getting back to nature.

People who love being in the outdoors have found a whole new way to bring nature to their own backyard so they can enjoy it at any time. Based on research from the Environmental Forestry Unit at Amherst, Massachusetts, first published three years ago by NATIONAL WILDLIFE magazine, people all over America are planning and planting their backyards to attract wildlife the year around.

All wildlife has the same basic needs: food, cover, reproductive areas and water. By planting the right trees, shrubs and flowers, plus building some additional hiding places, the first three basic wildlife needs have been met. Set up a simple water area and the formula for a successful backyard wildlife habitat is in hand.

The idea of attracting wildlife to the backyard is certainly not new. For generations, people have been feeding wildlife artificially through the maintenance of feeding stations and bird baths. I've eaten breakfast with cardinals, chickadees, titmice and juncos more mornings than not through my 39 years of life. The breakfast room window in the home where I grew up had a regular clientel of freeloaders all winter long. We converted the summertime flower box to a wintertime bird feeding tray and it attracted birds from miles around. In the summer, we had nesting robins, cottontail rabbits, toads, garter snakes, cicadas and many kinds of butterflies - all this in the heart of a very heavily industrialized community of western Pennsylvania.

There are many ways people can get involved with nature, but I know no better way than to create a back-

Downey woodpecker on onion bag suet feeder . . . and . . . on coat hanger feeder

yard wildlife area. Using the Amherst method, it is easy to do, need not be expensive and a project that the whole family can get involved in and ultimately benefit from.

Why Build a Wildlife Habitat? Beyond the aesthetic values of attracting birds and animals to your backyard, there are other practical reasons for going to all the trouble of developing a backyard wildlife area. Real estate people tell us that the enrichment required to develop your wildlife area increases the property value 3 to 10 percent. And even if you do not plan to sell your property, the trees, shrubs and flowers certainly enhance the beauty of your surroundings greatly. If that is not enough, one of the best reasons for doing all this is that it is just good fun.

In Virginia, city and suburban residents can expect common winter residents such as cardinals, chickadees, juncos, white-throated sparrows, purple finches, tufted titmice, bluejays, mockingbirds, as well as the nuisance birds like house (English) sparrows, starlings and pigeons. Winter mammals are a little scarce beyond the gray and fox squirrels unless you are out of the city far enough to have deer.

Summer residents to Virginia yards are numerous and easy to attract. They generally include nesting cardinals, song sparrows, mockingbirds, brown thrashers, mourning doves, house wrens, northern (Baltimore) orioles, chipping sparrows, robins, purple martins (if you are lucky) and cedar waxwings. Summer mammals include cottontail rabbits, raccoons, opossums, gray and red squirrels and, at night, flying squirrels and white-footed mice and deer in outlying areas. Summer means a great array of butterflies, katydids and bees. It means garden toads and perhaps a box turtle and a garter or green snake if you like those creatures.

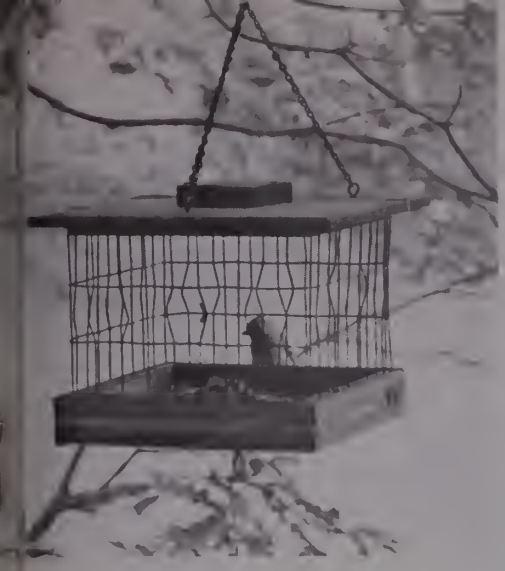
All of these animals can and will use your yard if you provide for them the four basic elements: food, cover, reproductive areas and water.

Make A Plan. No matter how crude, you need to sketch out the borders of your yard, what is in it now, and what you plan to plant and build in the future. Even if there is nothing but grass planted there now, you can design a model wildlife area on paper. This simple sketch could determine the whole course of your backyard wildlife program.

Where do you get help? Three years ago, NATIONAL WILDLIFE magazine ran a 12-page feature entitled "Invite Wildlife to your Backyard." It was so popular that the National Wildlife Federation launched a backyard wildlife program which certified hundreds of backyards across the United States as official wildlife sanctuaries. There are 14 in Virginia. Reprints of this article are available upon request from the National Wildlife Federation, 1412 Sixteenth Street N.W., Washington, D.C. 20036.

More recently, the National Wildlife Federation published a book on the subject entitled GARDENING WITH WILDLIFE. It, too, can be ob-

Recirculation yard pool



Back porch bird feeder

Black-capped chickadee on homemade salad bowl feeder

tained at the above address. Another good source of information is your County Agent or any college or university landscape specialist.

If you live in a soil conservation district, you can get help on water and soil problems from that office. The Virginia Commission of Game and Inland Fisheries has a publication entitled MORE WILDLIFE ON YOUR PROPERTY which is available by writing to Box 11104, Richmond, Virginia 23230. Even the big city zoos and museums may be helpful in the way of specific needs for your wildlife area.

Finally, your local nurseryman or lawn and garden center man is one of the best sources of information on what and when to plant. If you have some money to spend on this project, you will want to go to the local nursery for your plant materials anyway.

Cost. Speaking of money, how much will this cost? The answer is: It's up to you. If you have a big backyard and want to hire someone to do it for you, the cost will be high, perhaps as much as $10,000. On the other hand, you can do it all for as little as $200, but that means that you make your own plans, provide your own muscle power, and go on a scavenger hunt for free plant materials at your Uncle Frank's farm (always ask permission before digging on property that is not your own).

If you can afford a landscape architect, and hire someone to plant the materials, and if you buy large, well-developed nursery trees and shrubs, the cost will be high. Investing the extra money, however, means you'll see results faster, and the plants will also have a better chance of survival. These costs do not include maintenance. But expenditures for fertilizer, water and labor are no more for this kind of wildlife area than for a well kept lawn.

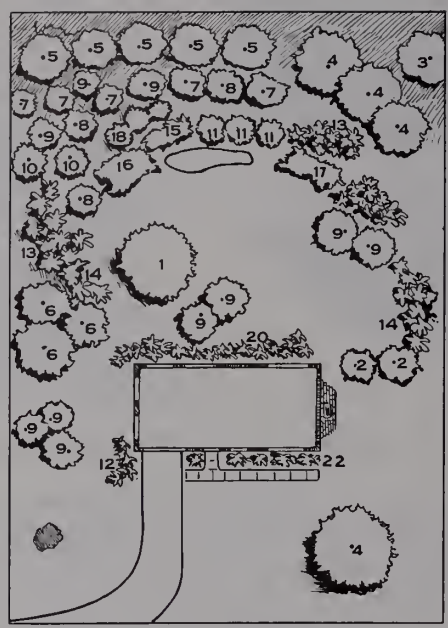
How Big a Yard? In researching this subject, we found that an average suburban backyard in Virginia is about 100 feet by 120 feet (about 1/4 acre). If your yard is smaller, it may be difficult to provide all the things we are talking about here, but it is possible to provide the four basic needs (food, water, cover and breeding areas) to attract some wildlife. Even people who live in apartment houses have been successful in attracting a great variety of wildlife to window boxes.

A dentist who lived in Blacksburg, attributed much of his success as a dentist to the fact that he had a very active window box outside his office. Children, in particular, would concentrate on the birds and squirrels at the window box while the doctor was working on their teeth. Before the patient knew it, his dental work was done. A window box can support the same basic processes as any natural area (soil, water, sunlight and plants) combining to produce life in a mocrocosm. If your apartment isn't too high above ground and there are birds and animals already in the general area, you might be able to attract a surprising variety of wildlife.

If your yard is larger than our model 100 by 120 feet, you're lucky. You can use the same basic principles to create a wildlife habitat which is vastly more effective because it can be more complete, diverse and stable. It takes an acre or more to attract animals higher in the food chain - those that live on other animal life such as owls, hawks, as well as raccoons, skunks and foxes. Grazers such as deer also need more acreage.

When do you Start? Today. Of course, the best time to plant trees and shrubs is spring, or early fall. But you can make your all-important plan, clear out unproductive growth, and prepare your soil almost any

Gray squirrel



BACKYARD WILDLIFE habitat planting plan: LARGE TREES—(1) beech; (2) holly; (3) white oak; (4) red maple; (5) white pine; (6) white spruce; (7) hemlock. SMALL TREES—(8) mountain ash; (9) flowering dogwood; (10) crabapple. LARGE SHRUBS—(11) winterberry; (12) downy serviceberry; (13) autumn olive; (14) viburnum; (15) elderberry. SMALL SHRUBS —(16) blackberry; (17) silky dogwood; (18) red osier dogwood; (19) Tartarian honeysuckle; (20) snowberry; (21) Japanese barberry; (22) rhododendron or other ornamental suitable to site. FLOWERS for planters and scattered beds — asters, daisies, marigolds, petunias, black-eyed Susans, sunflowers.

Well planted backyard habitat

time. If it's the dead of winter, there are always bird feeders, as well as bird and squirrel nesting boxes, to be constructed.

FOOD. Some wildlife eat seeds, berries and nuts. Other kinds require insects, worms and grubs. Still others are grazers and eat grass, leaves and buds. Food can be grown naturally in a backyard by planting food bearing trees, shrubs and plants such as oaks, crab apples, blackberries and sunflowers, Food can also be dispensed by setting out bird feeders containing cracked corn, sunflower seeds, millet, milo, wheat and other grains. Beef suet is a favorite among those birds that eat insects and grubs. Squirrels and chipmunks love corn still on the cob and peanuts in the shells.

COVER. Any place that protects wildlife from predators and weather is considered cover. This means that you can create some cover with the same trees, shrubs and flowers that provide food. You can also create rock piles, rock walls and brush piles as additional cover for rabbits, chipmunks and some songbirds.

REPRODUCTIVE AREAS. All wildlife needs protective places to breed and raise young. Different kinds of wildlife require different kinds of reproductive areas, but all must be hidden from sight. The same trees, shrubs and flowers provide some reproductive areas, and by allowing certain parts of the backyard to grow wild, you can provide many additional places for birds and animals to nest.

Nesting boxes are a good idea to attract wrens, bluebirds, chickadees and tree swallows. Larger boxes will satisfy owls, woodpeckers, wood ducks, kestrels (sparrow hawks) as well as squirrels. Robin shelters are recommended, too.

WATER. It doesn't take an expensive recirculating waterfall and pool to satisfy wildlife's critical need for water, but the fancy ones are very attractive and quite decorative. For more economically minded people, the standard bird bath or even an upside-down garbage can lid works well. By keeping the container filled and clean, the habitat will draw more visitors. During migration periods - that is, spring and fall - a water-filled bucket with a hole in it will bring in birds from far away. The drip, drip, drip is very compelling.

The Amherst research involved three stages of backyard growth. The basic and most important was the first stage in which a typical subdivision with nothing but grass was planted in the prescribed way. The second stage was the same yard 8 years later and the third stage was the same yard after 40 years of growth. The important point about the three stages is that many people already have mature trees in their yard and by planting shrubs and flowers they can reach the 40 year point in a year or two.

Therefore, no matter how old or how new your yard is right now, you can convert it into a wildlife habitat and have some degree of success within the first year.

1976 TROUT STOCKING PLAN

Legend:	* — National Forest Waters	R — Rainbow Trout
	B — Brook Trout	BR — Brown Trout

	Period Stocked		
	Preseoson	Moy	June-Jan.
ALBEMARLE COUNTY			
City Water Works	R	R	
Moormans R., N & S Forks	R	R	R
ALLEGHANY COUNTY			
Piney Branch*	R		
Smith Creek*	R	B	R
Simpson Creek*	B,R		
Pounding Mill Run*	B,R	B	R
Jerry's Run*	B		
Clifton Forge Reservoir*	R	B,R	R
Bratton's Run*	B		
AMHERST COUNTY			
Pedlar River (upper)	B,R	B,R	R
Pedlar River (lower)	B,R	B,R	R
Piney River	B,R,BR	R,BR	R,BR
Brown Mt Run*	B		B
Davis Mill Creek*	B		B
Enchanted Creek*	B,R		
Little Irish Creek*	B	B,R	
Pedlar River*	R	R	R
Statons Creek*	B		
S. Fork Piney River	B		
AUGUSTA COUNTY			
Back Creek	B,R	B,R	R
Jerkemtight Creek*	B	R	
North River*	R	R	R
Buffalo Branch*	B	R	
Ramsey's Draft*	B	B	B
Braley's Pond*	B	R	B
Back Creek*	B,R		
Kennedy Creek*	B		
Upper Sherando Lake*	B,R	R	R
Lower Sherando Lake*	R	R	R
Heartstone Lake*	R,BR	R	R
Elkhorn Lake*	R	R	R
Rowland Pond*	B		
Cold Spring Ponds*	B	R	
Little Dry Branch*		R	
Mill Creek*	B		
BATH COUNTY			
Bullpasture River	R,BR	BR	R,BR
Jackson River (No. 623)	R	B,R	R
Jackson River (Gathright)	B,R	R,BR	R,BR
Spring Run	B,R,BR	B,R,BR	R,BR
Back Creek*	B	R	R
Wilson Creek*	B	R	R
Mares Run*	B	R	R
Pad's Creek*	B	R	R
Little Mill Creek*	B		
Jackson River (hidden Valley)*	B,R	R	R
Lick Draft*	B	B	
BEDFORD COUNTY			
Hunting Creek*	R	R	R
Battery Creek*	R	R	
BLAND COUNTY			
Spur Branch	B,R	R	
Hunting Camp Creek	B,R	B,R	R
Laurel Branch	B,R	R	R
Laurel Creek	B,R		
No Business Creek	B,R	B,R	R
Lick Creek	B,R	B,R	R
Wolf Creek	R,BR	R,BR	R,BR
Kimberling Creek*	R		
White Sulphur Springs*	R		
Lick Creek*	R	R	R

	Period Stocked		
	Preseason	May	June-Jan.
BOTETOURT COUNTY			
Jennings Creek	B,R	R	R
Mill Creek	R	R	R
Roaring Run	R	R	R
North Creek*	R	R	R
Middle Creek*	R	R	R
McFalls Creek*	R	R	R
BUCHANAN COUNTY			
Hurricane Fork	B,R	B,R	
Dismal River	B,R	B,R	R
CARROLL COUNTY			
Stuart's Creek	B,R	B,R	
Big Reed Island Creek	B,R	B,R	R
Little Reed Island Creek	R,BR	R,BR	R,BR
Burkes Fork	B,R	B,R	R
Lovills Creek	B,R	B,R	
Laurel Creek	R,BR	BR	BR
Snake Creek		R	
Crooked Creek	BR	R	R
CRAIG COUNTY			
Potts Creek	R,BR	R,BR	R,BR
Barbours Creek*	R	R	R
N. Fork Barbours Creek*	R	R	
S. Fork Barbours Creek*	R	R	
Cove Creek*	B	R	
Lipes Creek*	B		
Potts Creek*	R	R	
Broad Run*	R		
DICKENSON COUNTY			
Frying Pan Creek	B,R	B,R	
Russell Fork River	R,BR	BR	R,BR
Pound River	R,BR	BR	R,BR
FLOYD COUNTY			
Beaver Creek	B,R	B,R	
Burkes Fork	B,R	B,R	R
Howell Creek	B,R	B,R	R
Rush Fork	B,R		
West Fork Little River	B,R	R,BR	R,BR
Meadow Creek	B,R		
Laurel Fork	B,R		
Mira Fork	B,R		
Little River	R,BR	R,BR	R,BR
Goose Creek	R	R	
Little River (fish-for-fun)		BR	
FRANKLIN COUNTY			
Green Creek	B,R	B,R	R
Blackwater River	B,R	R	
Runnett Bag Creek	B,R	B,R	
Maggodee Creek	B,R	B,R	
FREDERICK COUNTY			
Back Creek (upper)	B,R	B,R	
Back Creek (lower)	B,R	B,R	
Hogue Creek	B,R	B,R	R
Cedar Creek	B,R	B,R	R
Paddy Run	B,R	B,R	
GILES COUNTY			
Big Stony Creek	B,R	B,R	R
Dismal Creek*	R	R	R
GRAYSON COUNTY			
Big Wilson Creek	B,R,BR	R,BR	R
Middle Fork Helton Creek	B	B	R
Big Fox (lower)	B,R		
Big Fox (upper)	B,R	B	R
Middle Fox Creek	B,R	B	R
Elk Creek	B,R	B	R
Peach Bottom Creek	R	B	R
Helton Creek	R	B	R
Turkey Knob Fork Creek	B,R	B	
Hale Lake*	R	R	R
GREENE COUNTY			
Ivy Branch	B,R	B,R	
South River	B,R	B,R	
Swift Run	B,R	B,R	R

	Period Stocked		
	Preseason	May	June-Jan.
HENRY COUNTY			
Smith River	B,R,BR	R,BR	R,BR
HIGHLAND COUNTY			
Bullpasture River	B,R	B,R	R
S. Fork Potomac River	B,R	B,R	
Laurel Fork	B,R	B,R	
Jackson River	R,BR	R,BR	R,BR
Back Creek	B,R	B,R	
Laural Fork*	B		
Benson Run*	B		
LEE COUNTY			
Hardy's Creek	R,BR	R,BR	R,BR
Martin's Creek	B,R	B,R	
North Fork Powell River	B,R	B,R	R
MADISON COUNTY			
Garth Run	B,R	B,R	B,R
Hughes River	B,R,BR	R,BR	B,R,BR
Robinson River	R,BR	R,BR	
Rose River	R,BR	R,BR	
MONTGOMERY COUNTY			
Tom's Creek	B,R	B,R	
S. Fork Roanoke River	B,R,BR	R,BR	R,BR
Poverty Creek*	R	R	
Craig Creek*	R	R	
NELSON COUNTY			
Tye River	B,R,BR	R,BR	R,BR
North Fork Tye River	B,R	B,R	R
Stony Creek	B,R	B,R	R
Rockfish River	B,R	B,R	
PAGE COUNTY			
Cub Run*	B,R	B,R	
Pitt Spring Run*	B,R	R	
Upper Passage Creek*	B	R	
PATRICK COUNTY			
Dan River (below powerhouse)	B,R,BR	R,BR	R,BR
Dan River (above powerhouse)	B,R	B,R	
Rock Castle Creek	B,R	B,R	
Round Meadow Creek	B,R	B,R	
North Fork Mayo Creek	B,R	B,R	
South Fork Mayo Creek	B,R	B,R	
Poorhouse Creek	B,R		
Big Ivy Creek	B,R	B,R	
Ararat River	B,R		
PULASKI COUNTY			
West Fork Peak Creek	B,R	R	
RAPPAHANNOCK COUNTY			
Piney Branch	B,R	B,R	
ROANOKE COUNTY			
Roanoke River	B,R,BR	B,R,BR	R
Tinker Creek	B,R	B,R	
ROCKBRIDGE COUNTY			
Mill Creek	B,R	B,R	
Irish Creek	B,R	B,R	R
South River	B,R	B,R	R
ROCKINGHAM COUNTY			
North Fork Shenandoah River	B,R	B,R	R
Dry River	B,R	B,R	
Briery Branch	B,R	B,R	
Silver Lake	R		
Boone's Run*	B,R		B,R
Shoemaker River*		R	B,R
Blacks Run*	B,R		R
Gum Run*	B,R		R
Skidmore Fork*	B,R		R
Slate Lick Run*		R	R
Briery Branch*	R		
Briery Lake*	B,R	R	R
Hone Quarry Lake*	B,R,BR	R	

If brown trout are not available for stocking where indicated, Rainbow trout will be substituted.

	Period Stocked		
	Preseason	May	June-Jan.
RUSSELL COUNTY			
Copper Creek	R,BR	BR	R,BR
Thompson Creek	B,R	R	R
Big Cedar Creek (fish for fun)	R,BR		R
Laurel Bed Lake (fee fishing)	B		
SCOTT COUNTY			
Little Stony Creek	B,R	R	R
Big Stony Creek	B,R	R	
Devil's Fork*	R	R	
Stony Creek*	R	R	R
Straight Fork*	R	R	R
Little Stony Creek*	R	R	R
Cove Creek*	R	R	R
Stock Creek*	R		
SHENANDOAH COUNTY			
Passage Creek	B,R	B,R	R
Big Stony Creek (lower)	B,R,BR	R,BR	R,BR
Big Stony Creek (Bayse)	B,R	B,R	
Cedar Creek	B,R	B,R	R
Mill Creek	B,R	B,R	
Little Stony (above Reservoir)*	B,R	R	R
Paddy Run*	B,R,BR		R
Cedar Creek*	B,R		B,R
Little Passage Creek*	B		R
Peters Mill Creek*	B		R
Tomahawk Pond*	B,R	BR	R
SMYTH COUNTY			
Lick Creek (upper)	B,R	R	R
S. Fork Holston River (gorge)	B,R	R	R
S. Fork Holston River (lower)	B,R	B,R	R
Big Laurel Creek	B,R	B,R	R
Staley's Creek	B,R	B,R	R
Middle Fork Holston River	R	R	R
Comers Creek*	R	R	R
Hurricane Creek*	R	R	R
Houndshell Creek*	R	R	
Dickey's Creek*	R	R	
Center Creek*	R		
Roland Creek*	R	R	
TAZEWELL COUNTY			
Wolf Creek	R,BR	R,BR	R
Cove Creek	B,R	B,R	R
Laurel Creek	B,R	B,R	
Roaring Fork	B,R	B,R	R
Little Tumbling Creek	B,R	B,R	R
Roaring Creek*			R
WARREN COUNTY			
Gooney Run	B,R	B,R	
WASHINGTON COUNTY			
Whitetop Laurel	B,R,BR	R,BR	R,BR
Tennessee Laurel	B,R	B,R	R
Green Cove Creek	B,R	B,R	R
Big Brumley Creek	B,R	B,R	R
Big Tumbling Creek	B,R	B,R	R
Valley Creek	B,R	B,R	R
Straight Branch*	R	R	R
WISE COUNTY			
Middle Fork Powell River	B,R	B,R	
Burns Creek*	R	R	
Clear Creek*	R	R	
High Knob Lake*	R	R	R
Mountain Fork*	R	R	
Machine Creek*	R		
WYTHE COUNTY			
East Fork Stony Creek	R	R	
East Fork Dry Run*	R	R	
West Fork Dry Run*	R	R	
Gullion Fork*	R	R	
West Fork Reed Creek*	R	R	

Hunting Dogs I Have Owned and Loved

By E. LAURENCE DuPUY, Jr.
Martinsville

Of all my hunting companions over the years, I remember best my hunting dogs. While a young man, I was given a young "potlicker" named "Clipper," a large, long-eared hound with black back, blue-ticked legs and throat, and a heavy chop voice. If you shouldered your shotgun during the day, he was a tireless rabbit dog. If you got on a horse at dawn and blew a horn, Clipper was a fox dog. If you lit a lantern at night, he was a possum and coon dog. He would run a deer out of the county but would always find his way home. He was a good strike dog - swamp water and ice didn't bother him. He was also the best tree dog I ever saw. He changed his note entirely, giving a few tree barks, then circled to find whether the ring-tail had "barked" the tree. As long as Clipper could hear me whoop to him, he would stay by his tree. His one fault was, he loved to run a mink. Sometimes that paid off, when some of our hen houses got raided.

Clipper was never a fast dog, and, in his later years, after a hard morning trailing, it was a real effort for him to stay in the pack. I gave Clipper to a 14-year-old boy in Pittsylvania County who had lost his father and loved to hunt. The second night the boy had Clipper, he and some friends took him out and caught two possum. Later they stopped at a barn, curled up and went to sleep. When the boys got up the next morning to go home to breakfast, there was no Clipper in sight. About 9 o'clock that evening, I was sitting on the steps of my home in Prince Edward County when Old Clipper came walking down the path and held up his right paw to shake hands. We figured later that he made about six miles an hour.

Probably the most valuable dog I ever owned was a foxhound named Jolly. We were trying to build up a small fox pack about 1927. When I saw an ad in the RED RANGER - "3-year-old male Hudspath Foxhound, $25 - Cumberland Gap," I sent the money and the dog came to Farmville by express. He was about the worst looking hound I ever saw: white with a few lemon spots, short ears, rather long hair, a flag tail and so thin he looked like a half setter. He had a barb wire cut on his front leg and was full of lice. Later I took him down the bottom with a good rabbit dog. We jumped a rabbit, but Jolly just sat down and looked at me. I kept after him until he took the track, yepped, and went on up the hill and sat down again. That night, I wrote his owner just how I felt about him. I got a prompt reply, "I didn't sell you a rabbit dog, try him on a fox."

That Saturday, my hunting partner and his brother came by and said, "Let's try your new dog." They got a fox moving in a short while and Jolly took charge, with his high pitched chop "thack, thack, thack." He ran that fox all night and at daybreak they caught Jolly as he crossed a road. He still carried his tail high and wanted to go on, but the others were glad to quit. From that night on, he came to be known as the best fox dog in the county. Someone said if we had seven like him we could catch the Devil if we could strike him, and I believe we could.

He was a friendly, peaceful, medium-sized dog - light on his feet. He had no affection for me that I ever saw, anybody could take him hunting. He would even go alone. He had no homing instinct. If he got left two miles from home, he would stay at the first house he saw. I would get a card in a day or two saying, "Your dog is here."

I owned several bird dogs after Jolly: "Net," a little Riprap pointer who was a whirlwind but would not touch a dead bird; "Mike," a rawboned pointer who would hold a point indefinitely; and my favorite bird dog, an English Setter pup named "Rip." Rip had an excellent nose and was a fine retriever. He would run out to the street, bring in the newspaper and put it on the doorstep if he couldn't find me. He was an intelligent and very obedient dog. Someone said he would go through a brush fire if I told him to. He was just three years old when he was killed by a hit and run driver. I'm not ashamed to say I cried.

I had a heart attack soon after that. So I hung "Old Betsy" and my hunting gear in the basement with Rip's collar, where they still remain. But I still dream that I can hear Clipper's heavy "bow, wow, wow" at the foot of a tree; and Jolly's high "thack, thack, thack," when driving a red fox; and Rip's welcome when I drive into the yard.

Virginia's Wetlands

A Living Resource

By CURTIS J. BADGER
Onley

This is where the land meets the sea; where fresh water meets salt water. And here, where two biological worlds come together, abides one of the most complex, fragile and least-understood ecosystems in the world. Along the Chesapeake Bay and its tributaries, and along Virginia's Atlantic coast, there are some 5,000 miles of shoreline, providing the Commonwealth with 285,000 acres of tidal wetlands and a wealth of fishery and mineral resources.

The marsh is a fertile place, rich in animal and plant life. The wetland flora is dominated by cordgrass *(Spartina alterniflora)*, tall reeds which rise like slender spears from thick roots embedded in the rich marsh mud. The abundant Spartina grass is the heart of the wetland ecosystem. Its thick stalks provide sanctuary for a variety of marsh-dwelling birds and animals; the intricate root systems furnish a firm foothold which anchors the tenuous marsh soil; and after its tall stalks die in the fall, it constitutes the major food source for marsh organisms.

Very little Spartina is consumed by marsh animals while it is still alive; its value as a food source comes after the stalks die and are acted upon by bacteria. This combination of decaying Spartina and bacteria is called detritus, and is the predominant food source for many animals of the marsh. Bacterial decomposition of the Spartina is a slow process, lasting a year or more; therefore detritus is available as a food source all year.

Many of the smaller marsh animals feed directly on detritus, which they scrape from the bottom or siphon into their digestive systems. Such feeders include sessile or stationary animals such as oysters and barnacles, and also clams, scallops, crab larvae, snails and small fish. The larger animals feed on the detritus-eaters, and the food-survival chain of the wetlands continues.

The marsh is a harsh environment for both plants and animals. There are flora and fauna common to land and fresh water, and there are those which inhabit the salty depths of the ocean. But here, where the two worlds meet, a very unique biological system is formed. While the salt content of the sea water is stable, salinity of the estuarine waters of the marsh fluctuates, and plants and animals which live there have evolved special adaptations to survive in this environment.

When the tide comes in, bringing water from the sea, the salinity approaches that of the ocean, but at periods of low tide, especially after rains, the salinity drops dramatically. Although few organisms can survive such a change in their environment, marsh-dwellers have adapted well to such conditions.

Marshes are fragile, fertile, specialized places. About 90 percent of the commercial fish and shellfish harvested in Virginia are dependent upon the wetlands at least part of the lives. The marshes also support a diverse and abundant amount of bird life. In the unspoiled marshes of Virginia's Eastern Shore, where

most fertile wetlands remain unaltered by man, are found the largest numbers of clapper rail in Virginia, and the State's only breeding sites for the Forster's tern, willet and laughing gull. All four nest in the tall Spartina marshes.

The marshes also provide optimum sites for heronries, including such species as the snowy egret, Louisiana heron, little blue heron, glossy ibis and black-crowned night heron. Eight varieties of tern nest in the Eastern Shore wetlands-barrier island system, as well as black skimmers and shorebirds.

The bird population is large all year, swelling in the winter when migratory birds stop here. Canada geese and a variety of ducks winter in the estuaries of the seaside Eastern Shore and Chesapeake Bay, affording hunters and naturalists ample game to pursue.

For years, wetlands and wasteland were almost synonymous. Insect-infested, foul smelling and soggy underfoot, the marshes were looked upon with disdain by settlers, homesteaders and years later, by land developers. Although farmers sometimes harvested the tall Spartina grass and used it for hay, the marshlands made an unlikely spot for building homes. In some areas of the State, particularly near the urban centers, marshes were drained and filled, and the fragile wetland ecosystems were destroyed. In other areas, such as on the Eastern Shore, the marshes today remain as they have for centuries and continue to generate valuable natural resources for the state.

The marsh, that useless and uninhabitable wasteland, generates millions of dollars annually for the Virginia economy. It provides jobs for thousands of watermen, and provides a recreational resource for travelers in the Old Dominion. It also provides food for the table, for anyone who wishes to gather it.

How valuable are the marshes? It is almost impossible to place a dollar-per-acre value on the wetlands. They directly support multi-million dollar commercial and sport fishing industries, plus they have an inestimable aesthetic value for all who appreciate them from that standpoint. Estimates of marsh value vary from lows of several hundred dollars per acre to figures well into the thousands. The chief problem is that many of the seafood resources which the marsh supports spend only a part of their lives in the estuarine systems. Fish which spend the early part of their lives in the wetlands of coastal Virginia may be harvested miles away after they reach adulthood.

Although the wetlands defy a concrete economic evaluation, one thing is certain: they are a valuable natural resource for the state and they must be preserved. The key to protection lies in an effective coastal zone management program, which the state is currently developing with the aid of a National Oceanic and Atmospheric Administration grant of $251,044. Hopefully, a program will be designed that will provide a harmonious balance between land use and environmental quality. Our wetlands have provided Virginians with an aesthetically rewarding and economically valuable asset for hundreds of years. Let us insure that future generations of Virginians will be able to reap the same benefits.

KEPONE:

Will the Chickahominy Survive?

By M. M. Amos
Christiansburg

Like many of the rivers of Eastern Virginia, the Chickahominy is rich in historical significance. Before settlers populated its banks, the Chickahominy was home to the Chickahominy Indians. Many Indian arrowheads, tomahawks, spearheads and sections of Indian pipe have been found in the surrounding countryside. The Chickahominy River was once the site of the State Shipyard, which was burned during the Revolutionary War. It is probable that our forefathers chose the Chickahominy as a site for their shipyard because of the river's deep channel. The channel ranges in depth from 12 to 80 feet.

Today the Chickahominy River, which has its head some miles north of Richmond and its mouth at the James River, is important to both commercial and sport fishermen. The river yields a variety of fish such as catfish, rock (striped bass), and eel throughout most of the year and migratory fish such as herring in the spring of the year. It also produces a bounty of snapping turtles.

For years the Chickahominy was known as one of the cleanest rivers in the state. Then on December 17, 1975, Governor Godwin called for the closing of the James River and all of its tributaries, due to chemical pollution. The tributaries of the James are the Appomattox, Warrick, Elizabeth, Nansemond, Pagan and Chickahominy Rivers. The company responsible for making the chemical which flowed into the James was known as the Life Science Products Company of Hopewell. Under contract to Allied Chemical Corporation, Life Science's sole production was a fire ant and roach pesticide known as Kepone.

This Kepone was discharged through Life Science's sewer hookup for eight months or longer before being stopped. It is difficult to understand why any company would produce such a potentially dangerous pesticide. It was analyzed some years ago by the Medical College of Virginia and found to be a dangerous toxicant for which no antidote was known.

Because of the ban imposed on the James and its tributaries, it has been estimated that commercial fishermen may have lost $100,000 a day. When considering the individuals whose businesses were affected by the ban, this staggering sum may actually fall short. Closing these rivers affected not only commercial fishermen, but also oystermen, eelers, crabbers, netting and fishing equipment suppliers, box manufacturers and many others. Marina and campground owners feared that the pollution would harm their business this spring and summer, that it might even affect tourist trade.

During winter months it is oystermen who suffer most. The James River is the largest bed of seed oysters in the world. Most of these men are self-employed and ineligible for unemployment compensation. The public was initially advised that the rivers might not be reopened before July 1, 1976. If the rivers remained closed for this length of time, commercial fishermen on the Chickahominy might have lost 75 percent of their annual income. Similar statements were probably true for fishermen on other rivers under the ban. Shad begin spawning migrations near the end of February. This ushers in shad season which lasts until around the first of May. Some wholesalers of shad are located on the Chickahominy. If it was discovered that shad and other migratory fish contained elements of Kepone, it might have become necessary to close the entire Eastern Coast.

Past efforts to control water pollution seem to have concentrated on the small fishermen. Small commercial fishermen were prohibited from dumping fish remains into the water. If caught discharging any of these biodegradible wastes into the river, fishermen would be faced with a $10,000 fine or a year in jail or both. It seems incredible that while such stringent controls were maintained over the small businessman, toxic chemicals were allowed to pollute our waterways.

One commercial Chickahominy fisherman spoke of an effort in 1935 to stop chemical pollution of our rivers by large factories. The case was dismissed and no action taken. Now, 40 years later, this man and many others like him may lose their businesses because of water pollution.

Edited by GAIL HACKMAN

AIDS FOR PERPLEXED PARENTS

One day at school Johnny Younghunter was assigned a project on any topic he chose that had to do with environmental issues or natural resources. That afternoon when Johnny got home, he asked his parents for help in finding information for his projects. Although his parents could recommend the local Public Library, it did not provide enough up-to-date information in the specific area Johnny wished to pursue.

Johnny's parents were mystified. What could they tell him?

Little did Johnny's parents know; they could have whipped to the magazine rack, picked up this issue of *Virginia Wildlife* and found this page. Then, they could have calmly astounded the lad by telling him which resource agency to call for information on his particular subject.

The following list of resource agencies (both Federal and State) are preceded by the subjects in which they are most involved. Most agencies have some literature available upon request, or are able to provide information on where to obtain it.

ANIMALS AND FRESHWATER FISH

The Commission of Game and Inland Fisheries, 4010 West Broad St., Richmond, VA 23230

Virginia Cooperative Fishery Unit, U.S. Department of Interior, Virginia Polytechnic Institute and State University, Blacksburg, VA 24060

The Virginia Cooperative Wildlife Research Unit, U.S. Dept. of Interior, 100 Cheatham Hall, VPI & SU, Blacksburg, VA 24060.

U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC 20240.

RECREATION, CAMPING and LAND

Commission of Outdoor Recreation, Eighth St. Office Building, 803 E. Broad St., Richmond, VA 23219.

Division of Parks, 1201 State Office Building, Richmond, VA 23219.

Virginia State Travel Service, 911 E. Broad St., Richmond, VA 23219.

Northern VA Regional Park Authority, 11001 Popes Head Road, Fairfax, VA 22030.

Bureau of Outdoor Recreation, U.S. Dept. of Interior, Washington, DC 20240.

National Park Service, Dept. of Interior, Interior Building, Washington, DC 20240.

FARMING, PLANTS and TREES

Department of Agriculture and Commerce, PO Box 1163, Richmond, VA 23209.

Virginia Division of Forestry, PO Box 3758, Charlottesville, VA 22903.

Animal and Plant Health Inspection Service, U.S. Dept. of Agriculture, Washington, DC 20250.

U.S. Forest Service (National Forests), U.S. Dept. of Agriculture, Washington, DC 20250.

COMMERCIAL AND SALTWATER FISHING

Salt Water Sport Fishing Program, 25th and Pacific Ave., Virginia Beach, VA 23451.

Institute of Marine Science, Gloucester Point, VA 23062.

Marine Resources Commission, PO Box 756, Newport News, VA 23607.

National Marine Fisheries Service, U.S. Dept. of Commerce, 3300 Whitehaven Parkway, Washington, DC 20240.

WATER, SOIL, AIR, MINERALS

Division of Mineral Resources, PO Box 3667, Charlottesville, VA 22903.

State Water Control Board, PO Box 11143, Richmond, VA 23230.

Air Pollution Control Board, Room 1106, Ninth St. Office Building, Richmond, VA 23219.

Virginia Soil and Water Conservation Commission, PO Box 1163, Richmond, VA 23209.

Soil Conservation Service, U.S. Dept. of Agriculture, Washington, DC 20250.

National Oceanic and Atmospheric Administration, U.S. Dept. of Commerce, Washington, DC 20230.

Bureau of Mines, U.S. Dept. of Interior, Washington, DC 20240.

Office of Water Research, U.S. Dept. of Interior, Washington, DC 20240.

Division of Land Management, U.S. Dept. of Interior, Washington, DC 20240.

U.S. Geological Survey, Dept. of Interior, National Center, Reston, VA 22092.

CONSERVATION

Commission of Game and Inland Fisheries, PO Box 11104, Richmond, VA 23230.

Virginia Resource-Use Education Council, c/o Charles F. Lane, Professor of Geography and Geology, Longwood College, Farmville, VA 23901.

Finally, be sure there is a return address on the letter itself, since many times envelopes become detached from the letter, and misplaced. PRINT your name and complete return address clearly, just below your signature.

In Nature's Garden:

skunk cabbage

By ELIZABETH MUARRAY
Charlottesville

Illustrated by Lucile Walton

The skunk cabbage is the first flower to bloom in Virginia woods in spring, so it occupies a special place in our floral calendar. While not exactly beautiful, it is an extradordinary and interesting plant.

Skunk cabbage, *Symplocarpus foetidus*, belongs to the Araceae or arum family. This is a small family of monocotyledons characterized by rather large, broad leaves which root directly in the ground. The flowers are small with no corolla (petals), sometimes a calyx of four to six sepals, and are clustered on a central stalk called a spadix, which is often covered by a leafy bract called a spathe. The fruit is a berry. The plants nearly always contain pungent juice which tends to make them bad-smelling. The aroids are world-wide, but the majority of them are confined to the tropics.

The intriguing shape of many of the Araceae have attracted a good deal of colorful nomenclature. Jack-in-the-pulpit is well known but skunk cabbage is also known as 'parson-in-the-pillory,' 'stinging cabbage' and 'devil's tobacco' (*choi puant* and *tabac du diable* in Quebec), 'midasears' and 'polecatweed.' The Latin name *sympolocarpus* merely refers to the formation of the fruit by coalescing or joining (*symploce* - connection) of the carpels *(carpos* - fruit) and *foetidus* means just that - smelly!

The first part of the plant to appear is the spathe. This can be seen as early as late February, sometimes pushing up through ice or snow. The spathe is a large, leaf-like bract which rises out of the ground without a stalk. It encloses the spadix, a brown knob covered with brownish, insignificant little flowers. The flowers have four filamentous stamens, four slightly fleshy stamens and an angular style set on a tiny stigma. The spathe is usually dark red, spotted and blotched with yellowish-green and purple, and rolled in at the edges. Its color and rank odor attract the flies which are the chief pollinators of the plant. After flowering, the fruit develops as a spongy enlargement of the spadix enclosing the greenish berries.

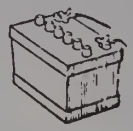
The leaves appear with, or shortly after, the spathes, but initially are rolled into compact cones and are not very noticeable. However, later in the spring they unroll and shoot up to form a thick crown of broad leaves, bluntly pointed at the top and conspicuously veined. They have an entire margin and are set on short, deeply grooved stems.

The young leaves may be cooked and eaten as greens, however a very strong word of caution should be given on this. Skunk cabbage is often found in the same kinds of boggy places as *Veratrum viride*, Indian poke or false hellebore, which is a violent poison, and it is quite easy to confuse the leaves. A few years ago, a young man was brought into the University of Virginia Hospital after eating a little 'salad in the woods.' He was quite sick and when we were shown the plant he had eaten, identified it as *Veratrum viride*. My own inclination is to leave skunk cabbage entirely alone and go elsewhere for wild greens and bread. The plant is said to have been used as a remedy for asthma, catarrh, rheumatism and nervous hysteria, but I think it must have been administered as a sort of shock treatment and as such, has been rather rigorous to endure!

Symplocarpus is not all that common in the state, but it does frequent the bogs and swampy places of our piedmont and mountain areas. It is primarily a plant of northeastern America, being found only occasionally in high places in Georgia and Tennessee, but extending all the way north to Quebec and across to Manitoba.

Edited by JIM KERRICK

HOW TO BUY AND MAINTAIN BOAT BATTERIES



Commercial and pleasure boat operators know well the obvious good sense of having dependable, serviceable batteries in their boats' electrical systems in order to supply electricity needed to start the engines and to power electrical or electronic gear at dockside, under working conditions, or in emergencies. However, the battery itself is mysterious to some. Many boat operators do not know what features to look for in batteries intended for marine use nor how to maintain batteries in order to assure long life, dependability and safety. By treating your batteries with the recommended coatings and then caring for them in the ways suggested, you can significantly extend their useful life.

WHAT TO LOOK FOR IN BUYING BOAT BATTERIES.

When shopping for batteries. remember that the term "marine battery" may not mean anything special. Follow the suggestions listed below.

1. Get the battery with the highest ampere/hour rating, with the fewest number of plates per cell, and the thickest plates that you can find. Beware of "quick charge" batteries. While these are indeed, quick to charge, they are also quick to discharge due to their thin plates.

2. If there is no apparent difference in the batteries you look at in the number and thickness of plates, you may spot the difference by comparing the length, width and height of batteries with the same ampere/hour capacity. Sometimes a battery which is a bit larger than another battery with the same number of plates has more lead in it (i.e. thicker plates).

3. If you intend to use the new battery in a bank of several batteries which are hooked in series, buy a battery which has the same ampere/hour rating as those already in the bank. Or, if you are buying all new batteries for a battery bank, get all batteries of the same ampere/hour capacity.

4. Be sure that any dry charge battery you purchase is fairly new since, if stored too long, the plates will dry out and lead will oxidize, reducing the battery's useful life.

HOW TO HANDLE AND INSTALL BATTERIES

Do not set batteries on a concrete floor, or on other damp floors for any long periods of time.

Carry batteries very carefully. Do not carry with the type of carrying strap which fastens to the positive and negative terminals, as these can cause cracking at the posts and subsequent leakage. Use a means of carrying which supports the battery from the sides or bottom of the case.

Set a battery down very gently. Do not throw or drop it. This minimizes the chance of damaging the internal plates or causing internal shorts.

To guard against battery current leakage from old or new batteries do the following:

1. Clean both battery terminals and the cable terminals to a bright finish with a 60-grit, non-metallic sandpaper, pocket knife or a commercial battery cleaning brush.

2. Tape over battery terminals and filler caps completely with electrical tape or masking tape. Sprinkle baking soda on battery. Then drip water onto battery from a scrub brush and scrub battery top, bottom, and sides extensively. Repeat the process four or five times for best results.

3. Dry battery with cloth and let it set to dry completely.

4. After drying, apply a protective coating around battery posts and on top and sides of battery. For the posts, a commercial produce, "Korrode-Kure," is available at auto supply houses. Apply a generous coat of this around the base of posts. For the top and sides, a clear acrylic spray is best. This is generally available at department stores or art supply stores under various trade names; "Krylon" is one such trade name. Spray four to five coats of this on the battery top and sides, allowing about 15 minutes between applications for proper drying.

5. Remove tape and place protective anti-corrosion pads over terminals and under cables. In the event of electrolyte leakage, the pads will neutralize the battery acid and limit corrosion of posts and cables.

6. Hook the battery into the boat's system. Use two wrenches on cable bolt to guard against twisting post. The battery should be tied down so that it cannot move about and should rest in a battery box, or on some type of grating.

7. Apply same protective coating as used on posts over cable/terminal junction to seal it.

HOW TO ASSURE AN EXTENDED LIFE FOR YOUR BATTERIES

Keep batteries clean by washing several times a year with clean fresh water.

Do not lay tools or any other objects on top of batteries.

Check batteries' specific gravity regularly. When checking, check all cells in all batteries - do not make spot checks. Use a hydrometer with a built-in thermometer and scale, and start the readings at the negative end of the battery.

Do not let any battery fall below a specific gravity reading of 1.225 on the hydrometer. Recommended specific gravity for lead-acid batteries is 1,260.

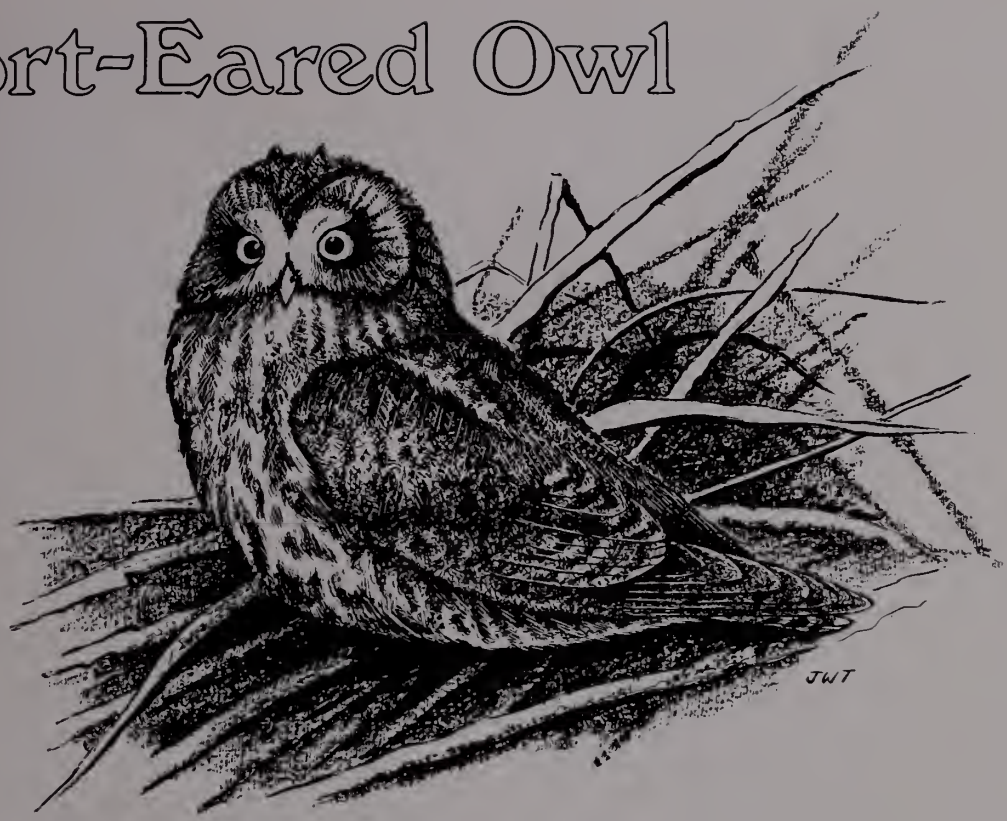
If a battery is below 1.225, do not start engine with that battery. Take it out of the system and have electrolyte added.

Do not use tap water in batteries. Use distilled water only or use one of the inexpensive steam-iron demineralizer filters available at most department stores.

Charge a battery only when it needs it as determined by a reading.

Bird of the Month:

Short-Eared Owl



When the vast acreage necessary for the Dulles International Airport was being cleared, the area became a mecca for short-eared owls. Dozens of them appeared, materializing, it seemed, out of thin air. Often four or five could be seen together, in a locality where they were almost unknown previously.

The owls came to feed on the army of rodents exposed by such large scale deforestation. Optimum conditions for meadow mice and voles were created, and a veritable plague of them resulted. With their cover destroyed, the creatures were forced to move about constantly, and the owls found them easy prey.

Such an occurrence is not without historical precedence. In the literature of European ornithology are other instances in which short-eares concentrated to feed on infestations of rodents. Similar, less celebrated instances happened in Canada and Asia.

For the short-eared owl is cosmopolitan, inhabiting every corner of the earth, save for Australia and the polar regions. Within this range it is an inveterate wanderer, having been recorded on most of the small island groups in both the Atlantic and the Pacific. Even ships, far at sea, have offered them refuge.

Locally, they are distributed sparingly over tidewater, preferring broad savannas of short marsh grass. (They are often called marsh owls.) A smaller number live in the open agricultural areas of the piedmont. The Dulles area is still a good place to look for them, and recent nests have been found near there. Most likely they breed in the Eastern Shore counties as well, since there is evidence of nesting just to the north, above the Maryland line.

More diurnal than other owls, and living where cover is sparse, short-ears are not hard to find if they are present. Often they are noted first in flight, an erratic, moth-like motion reminiscent of the nighthawk's manner. The ear tufts are seldom seen, except when the bird is alarmed.

Like most of the raptors, the short-ear has suffered drastic reduction in numbers. An indication of their former abundance is a passage in "Avifauna Columbiana" (The Birds of Washington, DC) by Coues and Prentiss (1883). It describes this owl as "an abundant resident, often seen about the city streets." Recall that the Nation's Capital was, at the time, hard by the Potomac marshes which extended nearly to the White House, and Tiber Creek flowed where the Department of Commerce now stands.

save
our
wetland
National Wildlife Week
March 14-20 1976
JOIN AND SUPPORT THE NATIONAL WILDLIFE FEDERATION AND STATE AFFILIATES